Exploring Open Pedagogy in Online Community College Settings: Enhancing Equitable Access, Engagement, and Student Persistence

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Abstract
This qualitative study examines open pedagogy as a critical instructional strategy in online community college settings to increase opportunities for authentic interactions that support student persistence. Discourse analysis was used to understand how community college students (n=78) perceive and connect with different aspects of open pedagogy activities. The study's findings underscore the students' awareness of their audience in online settings, their value of collaborative efforts to design digital materials, and the significance of acknowledging the digital learning context. Despite many students choosing to share their work publicly, challenges related to sharing work publicly were illuminated across reflective questionnaire responses. To address these issues, the study recommends enhancing media literacy, providing group collaboration options, and emphasizing institutional support. Further research should explore the influence of social media experiences and AI tools on the public sharing of open pedagogy activities. Ultimately, by embracing open pedagogy in online learning contexts while considering individual student identities and perceptions, community college settings can enhance online interactions, engagement, and student persistence.

Keywords: Open pedagogy, online learning, community college, student persistence, collaboration, online interactions

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Community college leaders acknowledge that many of their students prefer online options due to their flexibility and convenience (Murphy & Stewart, 2017; Raza et al., 2020), but they also have concerns about student persistence in these online courses compared to on-site courses (Hobson & Puruhito, 2018; Francis et al., 2019). As community colleges face the challenge of graduating fewer than 40 percent of their students within six years (Bailey et al., 2015) and recognize the potential for online learning to provide accessibility for their student population (Harris & Martin, 2012; Murphy & Stewart, 2017; Raza et al., 2020), it is imperative that online pedagogy be developed to meets students' learning needs so that they can persist and complete their educational journeys. Institutions address these challenges primarily through adaptations to learner support systems and instructional designs within their operational capacity (Xu & Jaggars, 2011; Kelly & Zakrajsek, 2020). Instructional designs significantly influence student learning outcomes (Rovai, 2003) and are relatively feasible to implement rather than making fundamental changes to technical or environmental conditions (Fang et al., 2023).

With online learning, students report feeling isolated and disconnected from their peers (Kaufmann & Vallade, 2020). Scholars have identified a link between lower online course persistence rates and course design, leading to an interaction deficit (Watts, 2016), while students who engage in the learning process with their peers may have lower attrition levels (Angelino et al., 2007). Notably, Paulsen and McCormick (2020) underline the constrained student-to-student interaction opportunities in online courses versus on-site settings. Other scholars argue that interactions in online courses lack authenticity for modern diverse learners, potentially isolating students and leading to disengagement and withdrawal (Kadakia & Owens, 2016; Majid et al., 2015; Mehall, 2020; Schultz et al., 2020). This isolation arises due to inadequate communication and genuine interaction, adversely affecting performance and course retention (Bawa, 2016). Instructors often address this gap using instructional designs that include text-based asynchronous discussion boards (Kauffman, 2015) despite students expressing discontent with this approach (Kauffman, 2015; Majid et al., 2015). Ultimately, online instructors are often frustrated due to poor guidance about best practices when designing interactions (Fehrman & Watson 20201).

As online learning instructors and researchers, we found ourselves connecting around these concerns and a shared interest in the possibility of utilizing open pedagogy to positively impact students' experiences in online learning in the community college setting. In our pursuit of equitable online education, open pedagogy emerged as a promising instructional strategy to provide a high-quality learning experience to all higher education students because it allows for collaborative practices that serve authentic purposes. Drawing on its connections to Open Education Resources (OERs), we define open pedagogy as focusing on student-centered creations, collaboration, authentic audiences and purposes, and utilizing Creative Commons (CC) licensing (Rollag Yoon & Gilpin, 2022). In our literature review, we expand on this definition and how its focus provides a pathway for student persistence in online learning at community colleges.

Our article begins with a literature review that situates our study by defining open pedagogy and identifying gaps in the research base around open pedagogy in community colleges. Importantly, we reflect on the ways open pedagogy provides space to critically question information as it is provided and actively and collaboratively make pathways for further

participation of all students. We position this idea within a view of online learning as a space of possibility for students' participation. We then provide details of our research study, including implementing open pedagogy activities, and share our findings. Finally, we discuss the implications of our research for open pedagogy and its potential to enhance equitable access, student engagement, and persistence in online community college settings.

Literature Review

This literature review focuses on three concepts that shape our understanding of open pedagogy as implemented in this study: (1) defining open pedagogy to include practical examples of these activities, (2) connections between online learning theories and open pedagogy, and (3) the complexities of open pedagogy. We end this section with a call for research around open pedagogy for the community college population, including our research questions.

OER to Open Pedagogy

The open education movement has its roots in OER as a cost-saving tool that can alleviate student debt and, to some extent, promote educational equity (McCoy-Simmons, 2022). Evidence of the positive impact of OER in education continues to build (Clinton, 2018; Gurung, 2017; Watson et al., 2017; Griffiths et al., 2018; Nelson & Riehman-Murphy, 2022). Hilton (2020) synthesized 36 studies involving OER effectiveness and perceptions, finding that students and faculty perceive OER as equal to or better quality than traditional textbooks. Add to this a large-scale study of over 20,000 undergraduate students (attending both community and four-year institutions) by Colvard and colleagues (2018) which revealed the positive impacts of OERs on grades and student attrition with the greatest positive impacts on historically underserved students and those from lower socioeconomic backgrounds.

In recent years, there has been a significant focus on enhancing diversity, equity, and inclusivity in education through the concept of open pedagogy (Bali et al., 2020; Clinton-Lisell et al., 2021; Hodgkinson-Williams & Arinto, 2017; Lambert, 2018) which is perhaps untapped in its potential to support online learners. This approach seeks to align the increased access and reduced costs provided by OER with social justice principles, as emphasized by Hare (2020), Kruger and Hollister (2021), and Nascimbeni and Burgos (2019). Additionally, open pedagogy operates within an OER ecosystem, where students learn to leverage CC licenses (CC, 2021) to copyright their materials for use and redistribution by others digitally. By providing space for students to create educational materials for others, open pedagogy can contribute to representational justice by facilitating equitable expression of perspectives (Lambert, 2018).

Aligned to the context of this study, the benefits of open pedagogy and OER have appeared in studies that focus on community college students (Clinton-Lisell, 2021; Rollag Yoon & Gilpin, 2022, Clinton-Lisell & Gwozdz, 2023; Griffiths et al., 2018; Lazzara & Clinton-Lisell, 2022). One such study by Clinton-Lisell and Gwozdz (2023) reveals compelling outcomes linked to open pedagogy activities. Students expressed heightened enjoyment, autonomy, pride, and motivation when engaging in renewable assignments compared to conventional tasks while feeling less pressure. These open pedagogy activities allowed students to share personal stories and insights, resonating with their experiences more effectively than traditional assignments. Open pedagogy has also been shown to support community college students through the creation

of ethnographic course materials (Griffiths et al., 2018), and using social annotation (SA) with OER resources has also been beneficial for community college students (Lazzara & Clinton-Lisell, 2022).

Our Definition of Open Pedagogy

The definition of "open pedagogy" is still evolving and is variously interpreted (Clinton-Lisell, 2021). Our definition contributes to the ongoing discourse of open education, OER, and open pedagogy. We use a definition of open pedagogy in this study and previous studies (Rollag, et al.,, 2022) based on four interconnected principles: (1) Student-centric creation, (2) Collective creation and collaboration, (3) Audience engagement, (4) Integration with OER and CC Licensing. In keeping with the spirit of open pedagogy, if students create their materials, we believe they should control how public or private they wish to be (DeRosa & Jhangiani, 2017). In the following subsections, we explain each principle in more detail.

Student-Centric Creation

Open pedagogy focuses on students as active information creators rather than passive consumers (Griffiths et al., 2022; Bentley & Chib, 2016; Hodgkinson-Williams & Trotter, 2018; Lambert, 2018). This approach moves past a one-way flow of information (Freire, 1998; Mirra, et al., 2018; Morrell, 2015) by focusing on the creation of texts as real-world projects *with* and *from* students (Lambert, 2018; DeRosa & Jhangiani, 2017). This principle is the foundation of open pedagogy because, without this focus, the activities revert to disposable activities with a limited audience. Making active space for student-created texts honors students' insights and experiences while leading to critical thinking, creativity, and collaboration (Rollag, Yoon, & Gilpin, 2022).

Collective Creation & Collaboration

Within open pedagogy, creation is collaborative, focusing on making connections across materials. Examples of collaborative open pedagogy assignments include opportunities for students to work collectively by building websites or creating podcasts with partners or small groups (Clinton-Lisell et al., 2021) and students posting memes to social media (Riser et al., 2020). The digital nature of many open pedagogy assignments also allows creators to work across time and space, bringing students together from different contexts to work collectively (Hilton et al., 2019; Seiferle-Valencia, 2020). Collective creation also comes with the use of OER intended for remix. Supported by media literacy and knowledge of CC licensing, open pedagogy assignments emphasize the ways people collaborate across material use.

Audience Engagement

The student-centered and collective nature of open pedagogy is directly connected to the importance of audience. Engaging students in open pedagogy supports them to share their work publicly, either with peers in their courses or with larger audiences including, for example, social media and professional organization websites (DeRosa & Jhangiani, 2017; Wiley & Hilton, 2018.). With this focus on openness, we still believe students should have choices about whether they engage in their open pedagogy activities individually or collectively. Ultimately, with the focus on authenticity, open pedagogy has the potential to address the authentic interaction deficit in many online learning spaces (Kadakia & Owens, 2016; Majid et al., 2015; Mehall, 2020; Schultz et al., 2020) as it impacts persistence.

Integration with OER and Creative Commons Licensing

Encouraging students to share their work publicly does not diminish their rights to it; instead, it can establish ownership, prevent unauthorized claims, and facilitate improvement through peer feedback. Students need to understand concepts like copyright, plagiarism, and remixing, and incorporating practices such as adding CC licenses can be beneficial (Jenkins, 2009). Students (the creators) should decide whether and how to license their creations, as the objective of open pedagogy for us is to nurture student engagement and interactions through the authentic creation of materials; to accomplish this, CC licensing should not be a barrier.

Open Pedagogy in Online Learning

The shifts we described thus far often include embracing pedagogies that cater to online learning. Open pedagogy emphasizes learning at the intersection of relationships, interests, and digital tools (DeRosa & Jhangiani, 2017). In this way, it aligns with features from the Community of Inquiry (CoI) (Garrison, et al., 2000), as this well-known online course design framework highlights social presence, which is concerned with developing meaningful relationships and community in online courses through technology-mediated interactions between instructors and students that allow for deep learning (Garrison & Cleveland-Innes, 2005; Rovai, 2001; Rovai, 2002) and support persistence (Rovai, 2002; Gilpin, 2020). Online instructors often turn to text-based asynchronous discussion boards to nurture social presence. However, students dislike these interactions (Kaufman, 2015) and instructors are frustrated by the dearth of guidance on designing online interactions effectively and the limited exploration of practical alternatives (Fehrman & Watson, 2021). However, some innovative alternatives to text-based asynchronous discussion boards have recently been advanced. For example, asynchronous video-based discussions (Lowenthal & Moore, 2020) and synchronous video conferencing technologies (Gilpin, 2022) have been shown to support the development of social presence.

We, too, see the benefits of developing social presence. Still, we recognize that some instructional designs used to nurture social presence may reinforce existing educational power structures (Chick & Hassel, 2009) that disenfranchise some students and potentially cause them not to persist. Yet, social presence can be nurtured in ways that empower all learners and align with open pedagogy. For example, Lowenthal and Thomas (2010) suggest that online instructors should strive to incorporate authentic, real-world experiences in their online courses to include public performance and the accompanying public feedback. They also posit that public sharing of course activities and even feedback in an educational setting, rather than individual submissions to course learning management systems (LMS) only instructors view, can enhance instructors' social presence with students without adding extra workload. When students actively participate in knowledge creation by sharing their course activities publicly, the online learning experience becomes more meaningful, engaging, relational, student-centered, and ultimately, accessible (Chick & Hassel, 2009; Gilpin, 2022; Gilpin et al., 2023).

Nonetheless, in support of equitable online learning, we look to theories beyond social presence that focus on the complexity of sociocultural factors that students bring into the classroom. We draw on ways that open pedagogy moves into reflective and critical action when students recognize how sociocultural factors impact moments of creation. This view aligns with a lens of Connected Learning (Ito et al., 2015), as it acknowledges that learning in the world

happens through a focus on authentic purposes, relationships with peers, and the use of available digital and material tools. From there, we see how this access to creation through online tools can be a way for students to question what knowledge has been created as they bring their perspectives and lens to material and resources that are then part of the wider discussion. Ensuring students recognize they can question and shift knowledge in this process is a key factor for our view of open pedagogy. Aligned with critical digital pedagogy (Mirra et al., 2018), it provides students space to reimagine material into a new form of engaging with real-world questions and problems.

Complexities of Open Pedagogy

It is crucial to acknowledge the complexities that open pedagogy activities present as students navigate sharing their work publicly. The main objection to students sharing their work publicly, whether on a LMS or elsewhere, is concern over privacy guarantees. This issue has been a topic of discussion since online learning's inception, especially with the influence of social media. Boyd (2007) emphasizes that the distinction between "public" and "private" is more intricate than the simplistic binary many perceive it to be. In this critical frame, we see space for students to bring their identities to open pedagogy practices in ways that empower them to share their work publicly. To accomplish this, we must consider students' experiences sharing in digital (e.g., social media, blogs) and non-digital (e.g., sports, music, arts) public spaces.

With a history of extensive usage in the arts and sports, public performance and the incorporation of public feedback as instructional strategies have not only been embraced, but are highly esteemed (Ross, 1994). According to reports from the Pew Research Center (2020 & 2022), today's students are known for using digital spaces to express their views on current events and issues. They create and share multimedia content, amplify hashtags, and cultivate digital identities through various forms of art and performance. However, despite this widespread experience of public sharing (Pew Research Center, 2020 & 2022; Ross 1994) and positive experiences reported with open pedagogy (Clinton-Lisell, 2021; Rollag Yoon & Gilpin, 2022. Clinton-Lisell & Gwozdz, 2023; Griffiths et al., 2018; Lazzara & Clinton-Lisell, 2022), students sometimes hesitate to embrace the digital sharing of their open pedagogy creations fully (Clinton-Lisell, 2021; Rollag Yoon & Gilpin, 2022). This is due to concerns about sharing with a potentially large audience and the potential for negative feedback and judgment by others (Rollag Yoon & Gilpin, 2022). Studies indicate that some students still prefer privately shared traditional assignment activities in which their work is shared only with their instructor and not beyond the course (Rollag Yoon & Gilpin, 2022; Clinton-Lisell, 2021; Wiley et al., 2016). Most instructors who use open pedagogy provide space for student agency around sharing publicly (Clinton-Lisell, 2021).

Some suggest that instructors support students' development of digital identities and teach them digital media literacies (Morrell, 2015) while acknowledging anxieties they may have from past experiences sharing in digital space that impact their willingness to share publicly in academic settings. In looking to support students' public sharing of open pedagogy products, Rollag Yoon and Gilpin (2022) found that teacher candidates were more willing to share publicly when working with a small group rather than independently. Interestingly, these same students shared their teaching portfolios publicly but suggested they were satisfied with this because they

could control the audience, whereas teacher candidates were concerned with times when the audience could be infinite. Other researchers suggest that a way to support student concerns about sharing publicly is for students to choose a pseudonym to share their work (Lowenthal, 2010; Bonica et al., 2018).

Open pedagogy also offers an instructional approach that challenges traditional educational hierarchies by offering alternative learning approaches (Griffiths et al., 2022; Bentley & Chib, 2016; Hodgkinson-Williams & Trotter, 2018; Lambert, 2018). This leads to some instructor concern about losing control over the learning process because open pedagogy blurs the lines between instructor and student roles. Open pedagogy promotes collaboration between instructors and students beyond mere content delivery or acquisition. It encourages active participation, co-creation, and knowledge sharing within and beyond the classroom (Rollag Yoon & Gilpin, 2022; Griffiths et al., 2022; Bentley & Chib, 2016; Hodgkinson-Williams & Trotter, 2018; Lambert, 2018). This shift can be highly challenging for those with a "banking model" philosophy of education which views students as passive recipients of knowledge deposited by instructors, emphasizes a one-way flow of information, with instructors being the authoritative source of knowledge, and students expected to absorb and reproduce that knowledge passively (Freire, 1998; Mirra, et al., 2018; Morrell, 2015).

Research Questions

The current study addresses the concerns about online student persistence (Hobson & Puruhito, 2018), interaction deficits (Paulsen & McCormick, 2020; Kadakia & Owens, 2016; Majid et al., 2015; Mehall, 2020; Schultz et al., 2020), instructional designs to address these deficits (Fehrman & Watson, 20201). In addition, there is a need for systematic investigations to guide the development of open pedagogy activities that delve into understanding the complexities of engaging with open pedagogy work in educational experiences across levels and contexts (Clinton-Lisell, 2021; Wiley, 2021).

This study aims to bridge the research-to-practice gap by looking at novel ways to nurture authentic interactions in online spaces that promote student persistence by addressing the following research questions: 1) How do open pedagogy practices support students in a community college setting? 2) How do students make meaning through open pedagogy practices? 3) How do students present their identities in open pedagogy practices?

Methods

Study Design and Researcher Positionality

This interpretive qualitative study (Erickson, 1986) focuses on the experiences of two groups of students in community college settings. This research is unique because it brings together people from different community college settings who made sense of open pedagogy. The researchers acknowledge their roles as faculty members and instructors and bring reflexivity to their reflection on interactions and interpretations of students' work (Pillow, 2003). Reflexivity, as described by Anderson (1989), involves a dialectical process encompassing the researcher's constructs, the informants' commonsense constructs, research data, the researcher's ideological biases, and the structural and historical forces shaping the social construction being studied. Julie was the instructor for some of the courses included in the study and was responsible for designing the open pedagogy assignments. Staci and Stephanie, faculty members

at four-year institutions, provided different perspectives on data analysis. As a result, they were able to offer multiple perspectives and entrance points for looking at the data. In the following sections, we describe the courses, open pedagogy activities, and their connection to the definition of open pedagogy, as well as the participants, data sources, and data analysis methods employed.

Participants and Research Context

This study was conducted across introductory-level online courses at two community colleges. Community College One/Course One implemented open pedagogy practices in three Psychology courses with a total enrollment of 68 students, with 45 participants electing to participate in the study. Julie was the instructor for Course One, located in an urban setting in the US Southwest , with a population of 6,500 students. Of those students, 44% identify as BIPOC, 71% are enrolled part-time, and 46% identify as first-generation.

Community College Two/Course Two was located in the rural US Midwest. The open pedagogy practices were implemented in three sections of an English course with a total enrollment of 75 students, with 33 electing to participate in the study. The instructor for these courses assisted with data collection but elected not to participate in other ways. There are 3,000 students at this institution, with 20% identifying as BIPOC and 44% enrolled part-time.

Students enrolled in these courses and participating in the study were representative of the overall college populations at both institutions. Both courses incorporated activities aligned with our definition of open pedagogy using online asynchronous and synchronous modalities. In sum, 78 students elected to participate in the study (consented to have their reflective questionnaire responses and course activities analyzed), yielding a 55% response/participation rate.

Data Collection

Table 1 provides an overview of the data collected, how they were analyzed, and examples. Data collection was ongoing throughout course design and implementation of open pedagogy assignments. After receiving institutional research board approval from both community colleges, data were collected from January 2021 to August 2021. Instructors of the courses collected data and stored it on shared digital space. Data include open pedagogy activity descriptions (collected from instructors), students' completed open pedagogy activities, reflexive memos and digital conversations between researchers and instructors, and reflective questionnaire responses related to students' experiences and perceptions of open pedagogy. In the following subsections, we highlight two key pieces of data collection that were the focus of our data analysis, specifically the open pedagogy activity descriptions and the reflective questionnaire.

Table 1
Data Sources, Analysis, and Examples

Source	Analysis	Example (if available)
1) Activity descriptions	The descriptions of the activities were reviewed prior to the start of the study and revisited throughout analysis to ensure they met the criteria/tenants of open pedagogy – see Table 2	Descriptions
2) Students' completed activities	For students who consented to participate in the study, their completed creations were reviewed for evidence of the tenants of open pedagogy – see Table 2	NA
3) Reflective questionnaire	Responses were analyzed using a discourse analysis to gain insights into student experiences and perceptions of open pedagogy activities	Questionnaire
4) Reflexive memos	Kept by both instructors and researchers throughout the study and during analysis.	NA
5) Digital conversations	Compared themes from findings to email correspondence, twitter conversations, and zoom interactions.	Email, Twitter, & Zoom

Open Pedagogy Activity Descriptions

The activities in these courses align with our definition of open pedagogy outlined earlier in this article. This definition includes four key components: (1) emphasizing students as creators, (2) providing opportunities for collaborative creation, (3) focusing on real audiences, and (4) utilizing CC licenses. These open pedagogy activities promoted collaboration, creativity, and student agency. By engaging in these activities, students may develop a deeper understanding of the course material, enhance their critical thinking skills, and contribute to the collective knowledge of the learning community. Table 2 shows how the activities in each course aligned with the four fundamental tenets of open pedagogy, as defined earlier in this study.

Community College One/Course One. Students completed two activities that fit our definition of open pedagogy in psychology courses across a semester, including the following:

- Collaborative Content Revision: In small groups, students worked together to revise and enhance an existing chapter in the OER textbook used for the course. Each group was able to select the chapter that they wished to revise. The content they created was made automatically visible to all students in the course and future students. The instructor justified this approach based on previous experiences with group work, emphasizing that students would benefit from sharing their work collectively rather than working in isolation.

- Individual Infographic Creation: Students engaged in an individual activity where they created an infographic that aligned with a specific chapter of the OER textbook. These infographics were then shared within the OER text utilized by the class. Given the individual nature of this task, students were given a choice to have their infographics included in the next version of the textbook.

Community College Two/Course Two. Students completed three activities that fit our definition of open pedagogy in English courses across a semester, including the following:

- OER Revision: In the small group revision activity, students worked together to polish and improve a chapter in an OER accessible to all students in the course and future students. The instructor established clear guidelines and expectations for group work and ensured that students felt comfortable sharing their work with others. This collaborative approach allowed students to benefit from their peers' diverse perspectives and knowledge. By sharing the revised content with others, students contributed to improving the course materials and creating a valuable resource for future learners.

- Creation of Supplementary Resources*:* In this activity, small groups of students were tasked with creating supplemental resources such as quizzes, videos, charts, memes, or slideshows to complement the OER resource. Students could elect to have their work included in the next version of the text. This allowed students to take ownership of their learning and contribute their unique ideas and perspectives to the educational materials. By providing choices to students about being included in the next version, the instructor respects their autonomy and empowers them to decide whether they want to share their work more widely.

- Individual Research and Sharing: In the individually conducted research activity, students were free to explore a topic of interest related to the course content. They could share their research findings on the instructor's course website or keep the activity private. This activity encouraged students to delve deeper into a specific area of the subject matter and develop their research skills while connecting to their identities. By providing the choice to share or keep their work private, students had control over the visibility of their research and respect for their preferences and comfort levels. Sharing the research on the course website created an opportunity for knowledge exchange and inspired other students to explore related topics.

Other assignment considerations. Students in both courses were encouraged to share their work publicly and to pursue CC licensing. Many students elected to share their work publicly but have not pursued CC licensing. Table 2 shows how the assignments in each course aligned with the four fundamental tenets of open pedagogy.

Table 2

Open Pedagogy Activities Alignment with Open Pedagogy Tenets—Presence in Courses

Tenet of Open Pedagogy	Community College One/ Course One Psychology	Community College Two/ Course Two English
1) **Student-Centric Creation:** Open pedagogy begins with a focus on students as creators of information. rather than just consumers	Students revised the content of the course OER text or created an infographic	Students revised the content of the course OER text, created a supplementary resource, and shared research
2) **Collective Creation & Collaboration:** Within open pedagogy, creation is collective through collaboration, as students are invited to remix current resources and create their own, utilizing digital tools to connect across time and space.	Students worked in small groups only for the OER chapter revision (remix) and provided one another with feedback	Students worked in small groups for two of the activities and provided one another with feedback in another
3) **Audience Engagement:** Open pedagogy assignments' digital and collective aspects are also connected to an authentic audience who can read and utilize materials in the moment and the future.	Students revised resources for use by their peers and in future courses – some elected to share publicly, but not all students	Students revised resources for use by their peers and in future courses – some elected to share publicly, but now all students
4) **Integration with OER and Creative Commons Licensing:** Students learn to utilize Creative Commons (CC) Licensing to identify and give credit to their knowledge alongside others.	Students encouraged by the instructor, but not required	Students encouraged by the instructor, but not required

Reflective Questionnaire

To design open pedagogy activities that are responsive to the increasingly diverse online student population, instructors and course designers need to know what students prefer and what they value in making meaning, since the more students value a task, the more likely they are to engage and bring their identities which, in turn, is likely to impact social presence and persistence (Wigfield & Eccles, 2000). To explore student perceptions through this lens, we used a 6-item reflected questionnaire like questionnaires developed earlier by Clinton and Kelly (2020) and Hilton and colleagues (2019). The reflective questionnaire included 6-items related to the value and downsides of open pedagogy activities. It was a required assignment for the courses completed at

the end of the semester; however, students consented to have their responses and open pedagogy activities included in the study, knowing their decision would not impact their grades.

Data Analysis

Data analysis was an ongoing and iterative process as we sought to locate recurring themes across artifacts and responses. The analysis in this article primarily focuses on community college participants' data set, consisting of 78 completed reflective questionnaires with other artifacts used to triangulate our analysis. We collaboratively coded the data via video conferencing meetings in Zoom. As we moved through the data, we used reflexive memos (Cohen et al., 2011; Patton, 2002) to document our thoughts and reflections throughout the analysis. We conducted inductive thematic analyses through six interrelated phases (Clarke & Braun, 2013); we modified the phases slightly to align with our study's design and research questions. The following subsection provides an overview of our data analysis.

- Phase 1. We familiarized ourselves with the data set by collaboratively annotating the content of the reflective questionnaire responses in a shared spreadsheet.

- Phase 2. We generated an initial coding scheme. We began by independently reading the reflective questionnaire responses and creating open codes (Merriam & Tisdell, 2016) as descriptive labels for varying aspects of the value students place on the open pedagogy activities and other connections across the curation process. We then confirmed results with one another and discussed any disparities until we reached a consensus across all authors. The open pedagogy course descriptions, students' activities, reflexive memos, and our digital conversations throughout the course assisted with consensus building. Then, we collectively collapsed and merged codes across our respective schemes to create broader categories related to student perceptions. We focused on themes that ran across both community college courses. While we see space for a deep dive into one setting or expanding a study to more community colleges, we found value in looking deeply across these two familiar spaces.

- Phase 3. We collectively searched for patterns of meaning. And we also looked at key quotations that highlighted the themes. In addition, we looked at responses or examples that defied patterns or themes to understand the significance of those events (Patton, 2002).

- Phase 4. We collectively verified the themes through key linkages (Merriam & Tisdell, 2016) by comparing the themes to the artifacts, including open pedagogy activity descriptions, completed activities, correspondence with course instructors, and reflexive memos.

- Phase 5. We collectively employed a discourse analysis (Gee, 2011) of the key quotes to understand how students placed value or made connections on specific aspects of the open pedagogy curation process. We analyzed specific quotes individually and then compared interpretations collectively for consistent considerations.

- Phase 6. This yielded the final analysis presented in the results section. We identified three notable interpretations that inform our conclusions: (1) collective creation, (2) context matters, and (3) audience awareness.

Results

Table 3 highlights findings from data analysis with a primary focus on the reflective questionnaire responses with other artifacts used to triangulate our analysis. We identified three notable themes/interpretations that inform our conclusions: (1) collective creation, (2) context matters, and (3) audience awareness. In the remainder of this section, texture is added to the themes, along with students' thoughts about future open pedagogy activities.

Table 3
Data Themes

Theme	Community College One/ Course One Psychology	Community College Two/ Course Two English

Collective Creation	"I would have been more nervous to present my information if I had not had *my group by my side*. We had become experts *together* and having them research and present with me strengthened my belief in the validity of myself teaching on that subject. Had I done it alone and shared privately, I believe I would have not done as well a job because I *did not have the ideas of the others to work with*, as well as lacking the drive to find new information to share with my peers." "Although I've grown to really just prefer doing projects and things on my own and being self-reliant, I definitely think that *working with a group was the better way* to go for this. If I had done all of this on my own, I *wouldn't have had other input from my group and I wouldn't have built the friendships that I did through my projec*t. Also, some of my group members did the same as me in terms of really going deep into the research, and even though we didn't end up using all of it for the project, *I learned a lot by having a group rather than if I just did it on my own. My group made it much easier for me to be comfortable with sharing publicly.*"	"That's one thing I loved about this class, I got to see so *many different opinions on various topics. it overall helped me with my confidence* in my work and to voice my opinions better." "I think sharing it publicly with other students is encouraging. *It can be more intimidating to turn a project in to your teacher than it is to have a fellow classmate read and comment on it."*

Context Matters	"I just feel like it *depends on what the presentation is about.* Certain topics may be *better off presented privately* rather than publicly. Other presentations are *better off presented publicly* so that everyone can be more knowledgeable and understand the concept better." "I would be fine with having work being *publicly shared every once in a while but not for every assignment.* When sharing our work privately *we use information that we have learned for ourselves* more than *publicly we share what we would want others to know and understand.*"	"I think it all *depends on the class and topic* of work that I will be completed so I know how personal I am able to get without feeling like I was exposing myself too much." "*Group projects are pretty simple, so turning those in publicly is alright.* but the large projects that take more work or time AND are peer-reviewed would be *easier just to ask for you to review* it because some people's writing skills are way better than others, so they don't always get quality feedback, if they get any at all."
Audience Awareness	*"I was worried about presenting and a little unsure if some of the images I had were correctly cited and whether I would have to state my citations*, but overall I don't think there any downsides after this experience, if there were/are I haven't thought of them yet." "I think it would depend on the type of project, but I would prefer to have projects that are privately shared because *I do have self-doubt and I do not want a bunch of people analyzing every piece of my work*."	"Some costs were that I did see some *negative feedback and that didn't make me feel the best*, but I got over it." "Being vulnerable and emotional in front of others."

Collective Creation

The option of working with a group or individually impacted students' experiences with open pedagogy. Students preferred the public sharing aspect of open pedagogy assignments with a group over individually curated projects. While research highlights the importance of offering students' opportunities to work together, the awareness that students had of the importance of collective creation was highlighted in both open pedagogy projects. Across both spaces, there was a sense of genuine connection to group members through language like *"friendship"* (Course One), *"my group by my side"* (Course Two), and *"I got to see so many different perspectives"* (Course Two). The students valued the collective nature for the social aspect of creating something together, where connections were made in the process of creating. The students also recognize the heteroglossic nature of language as something that can benefit all of them when they create together (Bakhtin, 1981). As one student in course two noted, "*I believe I would not have done as well a job because I did not have the ideas of the others to work with"* (Course One). Students recognized that this multi-layered use of language gave them space to build confidence with their peers. Instructors noted this growth in confidence over the semester and saw spaces where students used this combined language approach across their assignments.

Context Matters

Students noted they would only want to share some of their work publicly. Moreover, when sharing openly, they are apt to share what they want others to know and understand, compared to sharing their work privately. Students across both spaces noted that they shared information they deemed necessary or exciting as they engaged in open pedagogy assignments. As a student from Course One noted, *"I just feel like it depends on what the presentation is about."* Similarly, a student from Course Two explained, *"I think it all depends on the class and topic of work that I will complete*." This question of the context of audiences came up in class conversations as assignments were described and was an ongoing discussion across the courses. One connected response to the context recognized that students were comfortable sharing what they had control over, and the context of the sharing was important. As one student in Course Two explained, *"If it isn't something that is too personal, I wouldn't mind sharing, but anything that crosses that threshold I would like to keep private*."

Audience Awareness

The context was related to students' understanding of the audience in both settings. This awareness showed a sense of vulnerability, perfectionism, and varying confidence levels about the content they were creating for an open source. Students had questions about, and were aware of, the role of the audience as it related to what they were creating. As one student in Course Two shared, *"Some pros of sharing it just to you is that it can't be judged by other people. Pros of sharing it publicly is that other people could get ideas off of you and you can hear what other people thought about your work."* Similarly, a student from Course One explained, "*As audience changes, so does the manner in which the project is completed."* This awareness highlights the challenges of engaging in open pedagogy practices and the rich opportunity it provides for students to engage in media literacy within their learning.

Discussion

Aligned with existing research, this study illustrates the significance and complexity of implementing open pedagogy in online community college courses. We draw three recommendations from our findings. First, our findings indicate that students value open pedagogy and sharing some of their work openly, with a preference for collaborating. Thus, the design of open pedagogy activities should include the option of students working in a group to decrease anxiety about public sharing. Students should not be required to share openly; when they do, it should be via student-controlled platforms. Second, nurturing media literacies to include information about CC licensing should not be overlooked, as some students noted privacy concerns when sharing openly. Finally, institutional support is vital if open pedagogy is to be taken up by community college instructors. Taken together, these recommendations support the implementation of open pedagogy in ways that students value which, in turn, can support their persistence.

It is also important to highlight that this study occurred during the COVID-19 pandemic. Research revealed that college students' lives were significantly disrupted, adversely affecting their physical and mental well-being (Copeland et al., 2021). Consequently, these disruptions posed additional challenges for students in completing some of the online collaborative work. However, despite these difficulties, engaging in online group work provided some students valuable opportunities to connect with their peers and fostered a more robust community within

courses (Conklin & Dikkers, 2021). These factors have been central in supporting students' learning during the pandemic. In the remainder of this section, we connect our themes and recommendations to our research questions, elaborate on our recommendations, connect to prior research, and share limitations and future directions. *Table 4* provides an overview of the research questions alignment with themes and recommendations.

Table 4
Research Questions Alignment with Themes and Recommendations

Question	Theme	Recommendation
3)How do open pedagogy practices support students in a community college setting?	Collective Creation	Collaboration & Agency
2) How do students make meaning through open pedagogy practices?	Collective Creation	Collaboration & Agency
3) How do students present their identities in open pedagogy practices?	Audience Awareness	Media Literacies

Collaboration & Agency

In this study, most students desired more open pedagogy assignments in their future courses. Aligned with our first and second research questions, responses indicated that open pedagogy allowed for a sense of collaboration and agency that was important to students' interest and involvement in learning. By creating collaborative content and fostering inclusive spaces, open pedagogy activities enhanced students' confidence and facilitated meaningful engagement with the subject matter. This connects to previous research around open pedagogy (Clinton-Lisell, 2021; Rollag Yoon & Gilpin, 2022, Clinton-Lisell & Gwozdz, 2023; Griffiths et al., 2018; Lazzara & Clinton-Lisell, 2022) and addressed the interaction deficits often found in online spaces (Kadakia & Owens, 2016; Majid et al., 2015; Mehall, 2020; Schultz et al., 2020).

As a result, open pedagogy activities should nurture inclusive spaces by allowing students to work in groups, which can alleviate anxiety associated with public sharing. While group work has been a longstanding practice in education, including online spaces, with research noting the positive impacts (Rollag Yoon & Gilpin, 2022; Kelly et al., 2022), the integration of group work into open pedagogy is not extensively discussed in the literature (Rollag Yoon & Gilpin, 2022). Nonetheless, collaborative content creation in group settings has enhanced students' confidence in sharing their work publicly (Rollag Yoon & Gilpin, 2022; Johnson & Johnson, 1989; Panitz, 1999). This increased confidence stems from peer support and assistance, and the nurturing environment in small groups as students collaborate to curate content for public sharing. Interestingly, even when working individually on open pedagogy assignments, some

students in our study still exhibited positive perceptions about open pedagogy and derived confidence from the feedback received from their peers.

Additionally, students should have control over the openness of their work using student-controlled platforms. It is also crucial to respect students' preferences regarding their work's openness and to give them control over their sharing process. Instead of the instructor posting students' work on a website, students should be able to use student-controlled platforms to post and remove their work as they see fit.

Moving forward, it is essential to consider how developing technologies will impact open pedagogy practices around collaboration and sharing. More research is needed to consider how instructors take up Social Annotation in ways that align with open pedagogy. In addition, Artificial Intelligence (AI) tools will continue to change how learners develop real-time and virtual collaboration skills (Wu et al., 2020) and provide in-the-moment feedback (Civics of Technology, 2023; MIT Technology Review, 2023; Saleh, 2023). It will be essential that future research takes up the impact of these AI tools on teaching and learning in various contexts and how these AI-supported tools might support or hinder public knowledge sharing, including OER and open pedagogy.

Media Literacies

Aligned with our third research question, this study highlights the ways that open pedagogy practices create space for students to share their identities and that identity sharing must produce care for how we engage in online learning. This critical finding highlights the significance of nurturing media literacies, encompassing information about CC licensing (Creative Commons, 2021). This aspect should not be overlooked as it directly addresses concerns related to privacy and anxieties associated with open sharing. Educators should actively support the development of digital identities and teach media literacy skills, including navigating social media platforms (Morrell, 2015). Institutional librarians can support this work.

Furthermore, researchers should explore the connection between sharing publicly in open pedagogy and students' experiences with sharing on social media. This understanding will provide valuable insights into how these experiences influence and shape students' approach to open sharing. To address the issues associated with media literacies, it is essential to design relevant open pedagogy assignments that cater to these concerns. For example, assignments that involve revising OER, curating websites, or creating and sharing memes on social media can help students develop their media literacy skills while addressing privacy concerns.

Both individual instructors and educational institutions must acknowledge and address students' privacy concerns by discussing how information is already being shared, clarifying misconceptions, and exploring concepts such as appropriation and CC licensing (Creative Commons, 2021). In the evolving educational landscape, educators must prioritize teaching students how to access and evaluate information, discern its reliability, and distinguish trustworthy sources from unreliable ones. Educators must now guide students in locating reliable information, determining which sources to trust, and discerning reliable from unreliable sources. Resources such as Stanford's Civic Online Reasoning (2021) and Civics of Technology (2023) can assist students in becoming better evaluators and producers of digital content. By utilizing

resources shared, educators can help students become discerning consumers and creators of digital media while fostering critical thinking and reasoning abilities.

Supports for Implementation

Not directly tied to a specific research question, yet still vital, is a call for support of implementing open pedagogy practices to fully embrace the possibilities of critical open pedagogy and the ways it makes space for all students. A robust level of institutional support is essential to facilitate the widespread adoption of open pedagogy activities like those shared in this study. This support can be achieved through large-scale initiatives like the "zero degrees" program, which has gained popularity among community colleges and led to the widespread implementation of OERs in place of textbooks (SPARC, 2019). Similarly, to facilitate the adoption of open pedagogy, it is essential to involve instructional designers across institutions and departments skilled in guiding faculty through incremental changes. Research suggests this approach effectively supports instructors embracing open pedagogy and other open practices (Werth & Williams, 2022).

In summary, implementing open pedagogy in community college courses is significant and complex, as highlighted by our findings and existing research. Our findings underscore the importance of considering students' preferences for collaborative work and sharing creations, addressing privacy concerns through media literacy education, and providing institutional support to promote the successful implementation of open pedagogy in community college courses. A deliberate and well-defined approach to implementing open pedagogy practices allows for evaluating their impact on student experiences, learning, and course outcomes, ultimately leading to improved student persistence and success.

Limitations & Future Directions

As we look at the results of this study, we recognize that there is space for further understanding by interviewing students throughout their process of open pedagogy curation both to understand how they view the processes and to see how it differs from their other learning experiences more fully. This could also lead to future research on how students view their online identities as they share their work through open resources. As students begin to use AI to support their writing, studies are needed to help us understand how students engage in public idea sharing in multiple ways that work with or against using AI to curate open resources. Finally, there have been studies about open pedagogy and ungrading but a limited exploration of using both together. We suggest exploring open grading practices, commonly called ungrading (Kohn & Blum, 2020), impacting students' curation of open resources.

Conclusion

In the current landscape, community colleges are distinctively positioned to harness the present moment and cultivate fresh opportunities while tackling persistent challenges. Key among these challenges is equitable access, student engagement, and student persistence, particularly for online learners that include historically underrepresented groups. This study sheds light on open pedagogy and its potential to enhance outcomes for community college students as we highlight the role of openness in creating an inclusive educational environment by leveraging open pedagogy to nurture online interactions that support student persistence. By seizing the potential of open pedagogy, community colleges have the opportunity to drive

meaningful change and make education more accessible and equitable for all students, particularly those who have been historically underserved.

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